

REMARKS

Applicant respectfully requests consideration of the subject application as amended herein. This Amendment is submitted in response to an Office Action mailed on August 13, 2003. Claims 1-12 are rejected. Claims 1 and 8 have been amended. None of the claims is amended for the purpose of patentability. Claim 8 is amended to correct the lack of antecedent basis. Claim 1 is amended to clarify that the substrates are placed, transferred, or fed into the transfer apparatus, which then transfer the substrates to the test chuck. The substrates are not located permanently in the transfer apparatus as the Examiner seemed to have misunderstood, (the Examiner indicated that locating the substrates in the transfer apparatus seems inconsistent with securing the substrates in the test chuck). The substrates are transferred from the transfer apparatus to the test chuck.

Claims 13-24 have been withdrawn. No new matter has been added.

35 U.S.C. § 112, second paragraph rejection

The Examiner rejected claims 1-12 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 has been amended.

In addition, Applicant points out that the transfer apparatus, in one embodiment, is a transfer chuck 26 that is moveable relative to the support frame. The transfer apparatus can be moved to align with the conveyor system so that the substrate can be loaded, transferred, or placed into the transfer apparatus. (See also Figure 1-5). The transfer apparatus further functions to place the substrates over the test chuck 32, to allow the substrates to be secured to the test chuck so that the electrical circuits of the substrates can be tested. Thus, the specification fully describes what a transfer apparatus is.

35 U.S.C. § 102(b) rejection

Claims 1, 5, 8 and 9 are rejected under 35 U.S.C. § 102(b) as being anticipated by DeHaven, et al., (U.S. Patent No. 5,701,666, hereinafter “DeHaven”).

Applicant submits that DeHaven does not anticipate claims 1, 5, 8, and 9.

DeHaven dealt with testing circuits of a product device wafer using a wafer having similar circuit configurations as the product device wafer, called circuit distribution wafer (CDW). As stated in DeHaven, it’s a testing system wherein “one wafer is a test wafer testing another wafer under certain conditions allows for electrical testing, conditioning and monitoring of the product wafer; feedback or wafer temperature and individual device performance; and built-in over-current/voltage safeguards for one, many, or all integrated circuits formed on the product wafer.” (DeHaven, col. 4, lines 8-15). DeHaven’s testing system can be seen from Figure 1 and the associated description. As stated in DeHaven, the testing apparatus includes a chamber 12, designed to hold a CDW 16 and a product device wafer 14. (DeHaven, col. 4, lines 55-58).

In addition, in DeHaven, the “CDW 16 contains a plurality of circuits for testing/stimulating the integrated circuits on the wafer 14. The wafer 14 contains ICs which are usually arranged in some two-dimensional layout (i.e. they are in a row/column layout, for example). Therefore, the wafer 16 contains circuits arranged in a similar or identical two-dimensional layout scheme.” (DeHaven, col. 5, lines 13-18).

Furthermore, an interconnect media 18 is placed between the CDW 16 and the wafer 14 to allow for the connection between the CDW 16 and the wafer 14.

Turning now to Applicant’s claims 1, 5, 8, and 9, the first requirement is the placing of the substrate in the transfer apparatus. DeHaven does not teach a transfer apparatus.

Applicants submits that the elements 90 and 92 of DeHaven are fixtures (or housing) and are not transfer apparatus. The elements 90 and 92 do not move to transfer the substrates to another location. On the other hand, Applicant's transfer apparatus or transfer chuck 26, in one embodiment), move to transfer the substrates to the test chuck.

The second requirement is the securing of the substrates to a test chuck so that the substrates are held by the test chuck. DeHaven does not teach a test chuck. In DeHaven, the substrate, the wafer 14, is loaded in the chamber 12 on top of the interconnecting media 18 and on top of the CDW 16 so that the circuits on the wafer 14 is aligned with the circuits on the CDW 16. That is the reason why the circuit layout of the wafer 14 and 16 are similar or identical as previously mentioned. Further, elements 82 and 80 of DeHaven are not test chuck but are heating/cooling elements.

As can be seen, the CDW 16 is not the same as the test chuck 32 of Applicant's invention. The CDW 16 is placed in the chamber 12 and has similar circuit layout as the wafer 14. On the other hand, Applicant's test chuck 32 is not a wafer. Test chuck 32 has contacts that are connected to terminals of the dies on the substrate. CDW 16 has contacts that are connected to the wafer 14 through the interconnecting media 18.

Therefore, DeHaven does not teach each and every element of the claims 1, 5, 8, and 9 and thus, cannot anticipate these claims.

35 U.S.C. § 103(a) rejection

Claims 10-12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over DeHaven, in view of Abraham, et al. (U.S. Patent No. 5,907,246).

Applicant submits that DeHaven and Abraham together and in combination does not make obvious claims 10-12.

None of the references teaches at least the placing the substrates in a transfer apparatus, securing the substrates to the test chuck and moving terminals of the dies on the substrates into contact with contacts of an electric tester as previously discussed. Even if Abrahma teaches the thermal conditioning chuck to control the temperature of a device under testing, it cannot be combined with DeHaven to get to the elements of claims 10-12.

Therefore, DeHaven and Abrahma cannot make obvious claims 120-12.

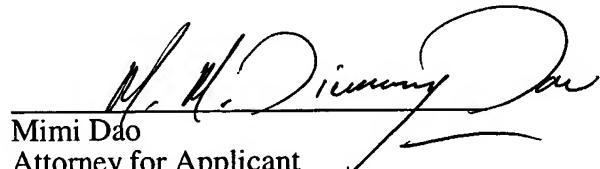
If the Examiner finds any remaining impediment to the prompt allowance of these claims that could be clarified with a telephone conference, the Examiner is respectfully to contact Mimi Diemmy Dao at (408) 720-8300.

Deposit Account Authorization

Authorization is hereby given to charge our Deposit Account No. 02-2666 for any charges that may be due.

Respectfully submitted,

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Date: November 12, 2003


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